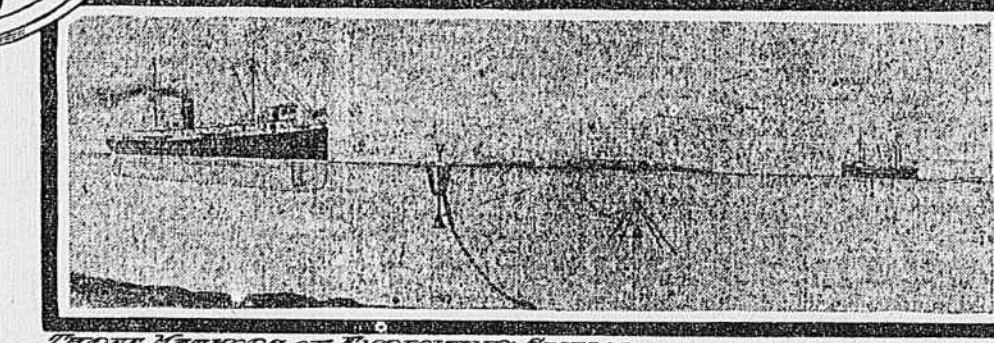
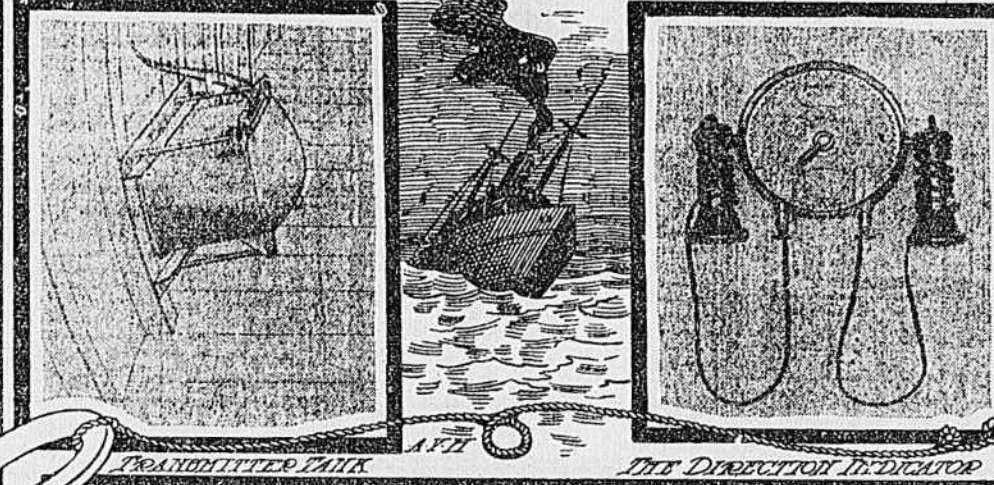


# DEFEATING the FOGS

BY THOMAS WILSON



THE DIRECTOR INDICATOR

OF its merits was soon accorded by the United States government, as also by the Canadian government, and regular installations of the apparatus upon light ships and steamers began to be ordered. It was not long before the progressive shipowners of Europe began to take notice of the new invention. Nautical authorities made an examination of it and found it practicable, with the result that the system was soon adopted, and now practically every one of the great ocean greyhounds that ply across the "Pond" at express speed are fitted with it, thus throwing around the traveling public another safeguard.

The United States Lighthouse Board, which has paid the greatest attention to the mechanism, did not see up the submarine signal without an exhaustive test, and during the summer of 1906 they caused submarine bells to be rung on

five different lightships continuously night and day during a period of two months, and all navigators were invited to send to the board their opinions of submarine signaling as an aid to navigation.

The result showed that by the use of the apparatus it was possible to compress into two months as much service in point of time as the average whistle is called upon to do in three years, and that, too, without injury to the mechanism, capable of being worked under 25 feet of water, and operated by the regular crew of the lightship without any increase in the cost of coal.

In the American Navy, in which the submarine torpedo boat is expected to play an important part in the near future, the efficiency and advantages of the apparatus have been better appreciated. Many beautiful specimens of the submarine craft can use a bell on

which it can beat out a code which can be received on board the flagship of the squadron and thus not only can the direction of the submerged craft always be ascertained, but a conversation can be carried on, orders given, etc., at a distance of between five and six miles.

This apparatus, which has been installed on all naval craft of this country, consists of two parts. First the signaling apparatus to produce sounds in the water. This may be at a fixed station, as a buoy or lightship, or on a moving vessel. Second, the receiving instrument, usually located on a ship. The former is of different forms. For stationary for signals the device is a submerged bell of peculiar design adapted to produce sounds of long range. The bell is rung by striking with a clapper making distinct strokes, separated by intervals of silence so that the numbers serving to identify the location.

as with the number of a lightship. These bells are from 15 to 18 inches in diameter, have a range of between five and six miles and have been heard much farther. Automatic machinery can operate these bells or they can be operated by wave motion the same as the ordinary bell buoy. For using the apparatus on moving craft the apparatus that sends the sound is inside the ship, placed as close to the keel as possible.

The receiving apparatus, as applied to vessels, comprises transmitters, "the ears of the ship," within the hull below the waterline; the receiving telephone and the direction indicator usually being in the pilot-house. The arrangement of them is: In the forehold is placed a pair of tanks, each as large as a good-sized cracker box. One is on the port side and one on the starboard side below the waterline and fastened to the outer plating so that the side of the ship makes one side of the tank.

This method of applying the sound receivers requires nothing projecting on the outside of the vessel; the apparatus is wholly inside of the hull, there being no cutting through nor any connection between the outer water and the liquid in the tank. The submarine bell sound passes from the outer water through the wall of the ship into the liquid in the tank, where it affects the microphone in the same way as the ordinary telephone transmitter is affected by the sound of the voice. The microphones in the port and starboard tanks, respectively, are connected by wires, through a battery, to the direction indicator which may be placed in the pilot-house, chartroom or

on the bridge.

This instrument is a round, metallic case about nine inches in diameter, shaped like a ship's clock and fastened in the same way to the wall of the room or bridge railing. On its face is a switch, by means of which either the port or starboard microphone can be connected with the receiving telephones. It has also a dial which shows to which side the phones are connected, and inside is a small electric lamp for use at night.

The receiving phones are similar to the common telephone ear pieces and are hung on hooks, one on either side of the indicator. They are also connected together, either to the port or starboard transmitter, according to the position of the switch. They may be used singly or together, as in cases where the sound is faint and it is desirable of shutting out other noise.

The operator places the receivers to his ears and then turns the switch until he has picked up the sound and then the indicator shows the direction whence it comes. By carefully listening to the sound and swinging the head of the ship until the sound is equal from both sides it is thus possible to point the nose of the vessel toward it, meanwhile getting bearings from the compass.

The further development of the submarine signal will be watched with interest by shipowners, and at no distant date it is possible that the dangers of roving overseas will be reduced greatly and the average annual loss of 1,000 good craft will be greatly reduced by preventing collisions and groundings during that most awful condition of life—adverse fog.

much in little—bits of interesting information gathered from various sources.

The abundant capacity of a brick is about 16 ounces of water.

The last windmill at Yarmouth, England, was recently sold for demolition.

The average life of a salmon is 10 years, but that of a carp or a pike is 150 years.

The Queen of Holland discourages gun-

shot as far as she is able. She is an ardent lover of all animals.

Edison proposes that the Marconi wireless will soon be able to transmit 1000 words a minute.

Those who have wintered in Alaska say that it is not the cold, but the mosquito that is the hardest thing to endure in the North.

King Leopold has offered a prize of \$50,000 for a remedy for the sleeping sickness, which is wiping out his subjects in Africa.

No Arctic explorers ever have colds until their return to civilization. Then, one and all, they are prostrated by severe influenza.

The human hair crop is a profitable and expensive industry. Five tons of it are annually imported by the merchants of London. The center of the trade is Paris, where 200,000 pounds are harvested annually, with a valuation of \$4,000,000.

The Queen of Roumania is ardently pursuing her philanthropic idea, which first took practical shape last year of collecting the blind of her country in one city, which Her Majesty has given the name of "Vatra Luminoasa."

The age of whales is ascertained by the size and number of laminae of the whalebone, which increase yearly. Ages of 800 and 400 years have been assigned to whales from these indications.

In Central Tennessee are large tracts of cedars, the berries of which serve to attract myriads of robins in the winter. One small hamlet in this region sends to market annually enough robins to return \$300 at 5 cents a dozen, equal to 120,000 birds.

They are killed at night by torchlight and with sticks.

When writers speak of waves "mountain high" they are merely indulging in poetic exaggeration. A wave according to 80 feet in height is seldom encountered. Some have been seen on the Atlantic that reached a height of 44 to 49 feet.

AMHERST

(Special to The Times-Dispatch.)

Amherst, Va., December 9.—Automobiles and all lovers of outdoor sports have been enjoying the mild weather to the fullest extent.

D. H. Harrison recently was in Boston.

J. H. Whitten and Miss Effie Whitten this week visited their home here.

Miss Edith Robertson has returned from a visit to her brother, W. M. Robertson, at Emporia. Her two little nieces, Martha and Claire Robertson, accompanied her home.

Captain T. J. Cunningham has returned from a visit to relatives in Hampton. While away he also attended the State Educational Convention in Norfolk.

Major W. J. Brodie, of Blacksburg, this week visited his parents, Mr. and Mrs. W. Brodie, at Mrs. B. Tallaford's.

Mrs. C. L. Scott recently entertained in a charming manner the members of Ascension Episcopal Church choir. After the regular practice, which was held at Mrs. Scott's residence, delicious refreshments were served.

Mr. and Mrs. Alexander Miller have issued invitations for the marriage of

their daughter, Miss Eva, to Thomas D. Farrar. The wedding will take place on Tuesday morning, December 12, at 10:30 o'clock, at the home of the bride, near Amherst.

HOUSTON

(Special to The Times-Dispatch.)

Houston, Va., December 9.—Mrs. Fournoy Boudin left Houston on Monday for Norfolk. Mrs. Boudin will be the guest of her brother, Dr. Warren White, whose marriage takes place on the evening of Thursday, December 11.

Miss Nannie Carrington, who spent Thanksgiving with Mrs. W. L. Barksdale, returned during the week past to Lexington, her home.

Mrs. Gilbert Meem, of Seattle, Wash., who has been visiting Mrs. W. H. Edmunds, left Houston on Friday for Mt. Airy. Mrs. Meem will be given a house party, which is to be given in compliment to her nephew, Mr. Keller, who is at school in the East.

Mrs. James S. Easley and Miss Elizabeth Boudin, who spent Thanksgiving as the guests of Mr. and Mrs. H. H. Easley, in Washington, have returned to Houston.

Miss James S. Easley and Miss Flor-

ence Easley entertained at bridge on Tuesday afternoon in honor of Mrs. Gilbert Meem and Mrs. James Durrier, of Scottsville. Those playing were Mesdames Meem, Durrier, G. G. Boettcher, H. L. Edmunds, W. H. Edmunds, C. H. Stebbins, G. R. Frost and the Misses Sadie Leigh and Helen Barksdale. Delicious refreshments of several courses were served during the afternoon. The prize, a silver picture frame, was won by Mrs. Durrier.

LOUISA

Louisa, Va., December 9.—P. L. La Toney, of West Virginia, is spending several days with F. P. Smith, near here.

Mrs. Ryland Gwathmey, of Richmond, spent the week-end with Captain and Mrs. F. Winston.

Mr. Clever, of New York, was the guest of Judge and Mrs. F. W. Sims recently.

Miss Nellie Winston, of Bristol, who is teaching this year in Fredericksburg, spent several days last week with Mrs. Charles Donnelly here.

Miss Isabelle Chandler left Tuesday for Richmond.

Mrs. Annie Barret and daughter, Kilburne, attended the suffragist meeting in Richmond Friday night.

DANVILLE

(Special to The Times-Dispatch.)

Danville, Va., December 9.—Mr. and Mrs. F. M. Yager, of Roanoke, are the guests of Mrs. Yager's parents, Mr. and Mrs. J. W. Jones, on Jefferson Street.

Miss Louisa Reams has returned to her home in Richmond after having spent a short time with relatives and friends in the city.

General J. Thompson Brown, of Richmond, is the guest of his daughter, Mrs. P. F. Conway, on Holbrook Avenue.

Miss Harriet James has returned from her home in Washington, where she attended the Washington and Lee and V. M. I. dances.

Miss Ivey Chandler and Miss Monk are in Richmond, taking the State nurses' registration examination.

Miss Kate H. Armstrong, of Columbia, S. C., is the guest of Mrs. E. P. Beades, on Main Street.

Miss May Haskins, of this city, won enthusiastic applause at a recital given by students at the New England Conservatory of Music, at Boston, where she is studying, on Saturday last. On this occasion she rendered Liszt's "Consolation" in an excellent and accomplished manner.

SOUTH BOSTON

(Special to The Times-Dispatch.)

South Boston, Va., December 9.—Miss Virginia Penchy, of Williamsburg, is visiting Mrs. J. D. Tucker, on Washington Street.

General William McComb, of Crozet, arrived a few days ago to spend the winter months with his daughter, Mrs. H. L. Ingram, Jr.

Mrs. L. J. Taylor, of Fauquier Springs, is visiting her parents, Mr. and Mrs. E. B. Yancey, on Broad Street.

Miss Lucile and Wilder Carter, of Danville, were guests of relatives here during the week.

Miss Sallie Edmunds and Miss Lula Edmunds, of Houston, and James B. Chastain, who has been a guest at the Edmondson home, left a few days ago for New York to visit.

Mrs. Willie Wingham of Danville, visited the home of Mrs. A. B. Wingham here this week.

The women of the Methodist Church of this place, gave a bazaar on Thursday and Friday. Many beautiful specimens of dainty handwork were on exhibition.

BLACKSBURG

Blacksburg, Va., December 9.—A number of young women from all parts of Virginia came here for the Thanksgiving dinner at the home of Professor and Mrs. W. E. Barlow on the campus. There were many callers and light refreshments were served by the members of the guild.

Miss Elizabeth Kippe, of Blacksburg's Island, N. Y., is the guest here of her sisters, Mrs. C. W. Black and Mrs. R. L. Page.

Mrs. B. W. Walker has returned from a trip to Pittsburgh, and is at the home of her daughters, Mrs. J. M. Johnson.

Mrs. Belle Browning has returned to the Methodist parsonage from a stay of two months in Roanoke.

Mrs. Foratlo S. Stahl left this week to spend some time at her home in Loudoun county.

Miss Mary Henderson left Thursday to spend most of the winter at the home of her brother, T. J. Henderson, in Salem.

Misses Clara and Edith Sturges, of Brookneal, left this week for home after a visit here to Miss Elizabeth Woolyline.

"She'll Be Delighted"

If You Give Her Jewelry

No other kind of gift carries so much sentiment or feeling of appreciation. It is not always necessary to choose expensive jewels and gems—we have many things that will convey your Christmas greetings appropriate and tasteful—though very moderate in price.

The Allen store has always maintained a reputation for high quality and sensible prices.

Early Choice Is Best Choice

Naturally the selection now is most varied. You may choose at your leisure, have your gifts engraved and laid aside, ready for your orders.

We Take Pride In Our Engraving Done Without Charge

Expert engraving enhances the attractiveness of your gift—another reason for ordering now to avoid the rush.

A Few Suggestions From The Allen Store:

Cuff Buttons, either with stone or plain, suitable for engraving, \$2.00 to \$25.00.	Solid Silver Teaspoons, regular \$6.00 value at \$5.00 set.	Diamond Brooches, \$8.00 to \$150.00.
Men's Cuff Buttons, solid gold, \$2.50 and up.	New handsome Shaving Mugs and stands, \$3.50 to \$15.00.	Diamond Necklaces and Lavalieres, \$12.00 up.
Exceptional values in Ladies' Solid Gold Buttons, suitable for Engraving, \$2.00 and up.	Handsome heavy Solid Silver Tea Set, regular \$175.00 value, \$150.	Diamond Locketts, \$8.00 to \$50.
Scarf Pins, all shapes and designs, from \$1.00 up to \$35.00.		Signet Rings, from the smallest at \$1.00 to the largest at \$15.00.
Gold Signet Hat Pins, \$1.50 to \$3.50.		Ladies' Solid Gold Brooches, \$1 up.
Solid Gold Signet Pins, \$1.00.		WATCHES—Ladies' 14-k, \$20 to \$100.
		Men's Solid Gold, \$35 to \$100.
		Boys' Watches, the INGER SOLL, \$1. Other grades up to \$10.

J. T. ALLEN & CO.,

Fourteenth and Main Streets.

Richmond, Va.

CHRISTMAS FURS

Here's the Gifts that will surely be appreciated—

We will sell Monday only at these prices

All furs that were \$10.00 set,	\$ 7.50
All furs that were \$15.00 set,	\$10.00
All furs that were \$20.00 set,	\$15.00
All furs that were \$25.00 set,	\$18.50
All furs that were \$30.00 set,	\$22.50

Full Line of Children's Furs

Sale of Children's Trimmed Hats

100 fine velvet hats for the little ones, the newest designs sold from \$3 to \$5, Monday only \$1.89

Long Black Coats

Strictly tailored of Cheviot and Broadcloth, velvet and braided collars, \$10 value, Monday only \$5.75

Between 1st & 2d

The Fashion

118 East Broad Street

Wrong Side